## **Claims**

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1. A medical diagnosis system comprising:

a pupilometer for obtaining a first set of data descriptive of one or more pupilary characteristics;

a light source in electrical communication with the pupilometer; and

a central processing unit in communication with the pupilometer and the light source, said central processing unit capable of controlling the amplitude of the light source.

- 2. The system of claim 1, further comprising a database for storing a second set of data descriptive of one or more pupilary characteristics, and wherein the central processing unit is capable of comparing the first set of data with the second set of data to detect neurological deterioration.
- 3. The system of claim 1, wherein the first set of data comprises pupilary latency indicia.
  - 4. The system of claim 1, wherein the first set of data comprises pupilary constriction velocity indicia.
- The system of claim 1, wherein the first set of data comprises pupilary first and second dilation velocity indicia.
  - 6. The system of claim 1, wherein the first set of data comprises pupilary amplitude indicia.

- 7. The system of claim 1, wherein the first set of data comprises pupilary diameter indicia.
- 8. The system of claim 1, wherein the first set of data comprises segmental dynamicanalysis indicia.
  - 9. The system of claim 1, wherein the first set of data comprises segmental static analysis indicia.
- 10 10. The system of claim 1, wherein the central processing unit comprises an algorithm configured to convert said first set of data to one or more scalar values.
  - 11. The system of claim 1, wherein the central processing unit is capable of storing temporal data.

12. The system of claim 1, wherein the central processing unit is capable of controlling temporal data.

- 13. The system of claim 1, wherein the central processing unit is capable of synchronizing the light source with the pupilometer.
  - 14. The system of claim 1, wherein the light source is amplitude modulated.

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